UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,164	08/29/2005	Graeme Alexander	5253-00001	8255

26753 7590 01/30/2009

ANDRUS, SCEALES, STARKE & SAWALL, LLP
100 EAST WISCONSIN AVENUE, SUITE 1100
MILWAUKEE, WI 53202

EXAMINER	
LOEWE, ROBERT S	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
01/30/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/523,164	ALEXANDER ET AL.	
	Examiner	Art Unit	
	ROBERT LOEWE	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-19 and 21-48* is/are pending in the application.

4a) Of the above claim(s) *34-38* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-19 and 21-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 January 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/21/09 has been entered.

Response to Arguments

Applicant's amendments and arguments regarding the previously relied upon prior art reference of Leroux et al. (US Pat. 5,262,454) have effectively removed this reference as an anticipatory or obviousness-type reference. Specifically, Leroux et al. does not teach or suggest that the glass additive be selected from glass frits, glass fibers, or mixtures thereof as required by instant claim 1. Leroux et al. employs hollow glass fillers which are shown to be critical to the invention of Leroux et al. Substitution of the hollow glass fillers for those of instant claim 1 would be counterintuitive to a person having ordinary skill in the art based on the teachings of Leroux et al., who teaches that the role of the hollow glass fillers is critical to the overall compositions taught therein (1:33-37 and 2:1-14).

Applicant's amendments and arguments regarding the previously relied upon prior art reference of Landin (US Pat. 6,153,674) has bee fully considered and is not found to be persuasive. Specifically, Applicants argue that the fire barrier materials of Landin do not meet the limitations of the instant claims. Specifically, Applicants now claim that the fire resistant

polymer composition is **based** on a silicone polymer. Applicants argue that since Landin employs only minor amounts of silicone polymer as a binder, the composition therefore, cannot be based on a silicone polymer. However, the aqueous silicone polymeric binders taught by Landin in some embodiments would be the only polymeric material present in the composition; therefore, the polymer composition would still be based on a silicone polymer. Further, Applicants have not defined what "based on" refers to. There is no clear definition regarding what the lower limit of silicone polymer would qualify to meet this "based on" requirement of the instant claims. For these reasons, the prior art reference of Landin is maintained. Regarding Applicants newly added claims 41 and 42, while the compositions taught by Landin contain a large percentage of inorganic material held together by an aqueous binder, such materials nonetheless are capable of being extruded, even if the resulting extrudate does not typically meet the requirements for extruded materials. While a person having ordinary skill in the art might recognize that the compositions of Landin might not be processed using the technique of extrusion, a person having ordinary skill in the art would also recognize that the compositions taught by Landin are **capable** of being extruded. However, Landin clearly does not teach or suggest the limitations presented in newly presented claims 43-48.

Last, new grounds of rejection based on a reference not previously of record [Mizutani et al. (JP-55078073) which is now cited on the attached PTO-892 form] is made and is shown below.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 39 and 40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the limitation "in an amount of at least 56.5% of the total composition" is believed to be new matter. Applicants clearly show support for 56.5% as the lower limit in a working example. Applicants also clearly show support for 76.75% silicone polymer as the upper limit in a working example. However, values in **excess** of 76.75% would also satisfy the limitation "at least 56.5%", which Applicants do not have support for. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 7-10 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landin (US Pat. 6,153,674).

Claims 1 and 2: Landin teaches a fire barrier material comprising a binder, such as silicone polymers (4:16), which may be present from 0.5 to 10 wt% (4:56-58), an intumescent compound such as mica (7:20), which may be preferably present in amounts from 9 to 75 wt% (7:32-36), which significantly overlaps with the range of instant claim 1, and a fiber, which may be an inorganic fiber, such as fiber glass/glass fiber (5:35), which is preferably present in amount of from 3 to 10 wt%, which substantially overlaps the range of instant claim 1. Further, the fiber glass additives are taught to be a preferred fiber additive (17:65-18:1). While the teachings of Landin are not specific enough to warrant a case of anticipation, it is nevertheless obvious from the teachings of Landin to arrive at the limitations of instant claims 1 and 2, since silicone rubber, mica and glass fibers are each specifically mentioned. Further, the amounts of intumescent compound and fibers are taught to be within the ranges of instant claim 1.

Claims 7-8: The fiberglass additives taught by Landin are not taught to contain alkali metal oxides.

Claim 9: Landin further teaches the addition of endothermic compounds such as alumina trihydrate, zinc borate and magnesium hydroxide (8:43-51).

Claim 10: Since Landin teaches that glass frit may be added in amounts of up to 1%, it follows that such glass frits satisfy the limitations of the glass additive of instant claim 1.

Further, the fiberglass additives taught by Landin serves the role of an inorganic fiber which does not melt at 1000 degrees C.

Claim 41: While Landin does not teach that the compositions are extrudable, it has been argued by the Examiner above that the compositions taught by Landin only need to be **capable** of being extruded, whether or not such a process would be deemed suitable.

Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landin (US Pat. 6,153,674) as applied to claim 1, and further evidenced by (http://www.chance-hunt.com/cepree/products/howitworks.htm).

Landin renders obvious the composition of instant claim 1, as described above. Landin further teaches that in addition to the glass fiber additives, further additives may be added in amounts of up to 1% by weight (10:42-48); such additives including glass frit (10:1-13). Landin further teaches exemplary glass frit includes glass frit commercially available under the trade name Ceepree 200. Ceepree 200 is shown to be a mixture comprising glass frits having a softening point which satisfies the range of instant claim 6 as shown in the website http://www.chance-hunt.com/cepree/products/howitworks.htm. The suggestion to add glass frit to the fire barrier materials of Landin would lead to a composition wherein the glass additive is a mixture of glass frit and glass fiber as in instant claim 2.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landin (US Pat. 6,153,674) as applied to claim 1 above, and further in view of Hedrick (Mica, 1997, first published on the web on 8/24/2000).

Landin renders obvious the composition of instant claim 1 as described above. Landin does not explicitly teach that the mica which can be employed in the compositions can be either phlogopite mica or muscovite mica. However, a person having ordinary skill in the art recognizes that mica is not a single species but represents a class of minerals. Because of this, a person having ordinary skill in the art would have found it obvious to choose a specific type of mica, and based on the teaching of Hedrick, would have been motivated to choose either muscovite mica since it is abundant and has superior electrical properties, or phlogopite mica since it remains stable at high temperatures and is used where high heat stability is required.

Claims 14 and 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Landin (US Pat. 6,153,674) as applied to claim 1 above, further in view of Sawada (JP 09-55125). For convenience,

Landin renders obvious the composition of instant claim 1, as described above. Landin does not explicitly teach the particle size of the mica which may be employed. However, a person having ordinary skill in the art would have found it obvious to turn to the relevant prior art for selection of the particle size of the mica filler. Sawada teaches a flame-retardant composition comprising a silicone rubber matrix and various flame-retardant fillers including mica, as shown in the table of the Sawada. Said document further teaches that the particle size of the mica is preferably from 100-300 microns (paragraph 0009), which substantially encompasses the range of instant claim 14 and 15. A person having ordinary skill in the art would have been motivated to select mica having the particle sizes taught by Sawada into the compositions as

taught by Landin since Sawada teaches that the compositions with a reasonable expectation of success.

Claims 19, 20, 25-32 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landin (US Pat. 6,153,674) and further evidenced by (http://www.chance-hunt.com/cepree/products/howitworks.htm).

Claims 19 and 20: Landin teaches a fire barrier material comprising a binder, such as silicone polymers (4:16), which may be present from 0.5 to 10 wt% (4:56-58), an intumescent compound such as mica (7:20), which may be preferably present in amounts from 9 to 75 wt% (7:32-36), which significantly overlaps with the range of instant claim 1, and a fiber, which may be an inorganic fiber, such as fiber glass/glass fiber (5:35), which is preferably present in amount of from 3 to 10 wt%, which substantially overlaps the range of instant claim 1. Further, the fiber glass additives are taught to be a preferred fiber additive (17:65-18:1). While the teachings of Landin are not specific enough to warrant a case of anticipation, it is nevertheless obvious from the teachings of Landin to arrive at the limitations of instant claims 1 and 2, since silicone rubber, mica and glass fibers are each specifically mentioned. Further, the amounts of intumescent compound and fibers are taught to be within the ranges of instant claim 1.

Claims 25-26: The fiberglass additives taught by Landin are not taught to contain alkali metal oxides.

Claim 27: Landin further teaches the addition of endothermic compounds such as alumina trihydrate, zinc borate and magnesium hydroxide (8:43-51).

Claims 28-31: Because Landin teaches the flame retardant compositions of instant claims 1 and 19, it follows that the physical and chemical properties of the compositions of Landin would satisfy the physical and chemical property limitations of instant claims 28-31. A chemical composition and its properties are inseparable. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655, (Fed. Cir. 1990). See also *In re Best*, 562 F.2d 1252, 195 USPQ 430, (CCPA 1977). "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established."

Claim 32: The fire barrier compositions taught by Landin may be in the form of sheets which may be used to secure articles such as conduits, cable trays, door frames, chemical tanks and isolation chambers (11:38-55).

Claim 42: While Landin does not teach that the compositions are extrudable, it has been argued by the Examiner above that the compositions taught by Landin only need to be **capable** of being extruded, whether or not such a process would be deemed suitable.

Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landin (US Pat. 6,153,674) as applied to claim 19 and further evidenced by (http://www.chance-hunt.com/ceprec/products/howitworks.htm).

Landin renders obvious the composition of instant claim 19, as described above. Landin further teaches that in addition to the glass fiber additives, further additives may be added in

amounts of up to 1% by weight (10:42-48); such additives including glass frit (10:1-13). Landin further teaches exemplary glass frit includes glass frit commercially available under the trade name Ceepree 200. Ceepree 200 is shown to be a mixture comprising glass frits having a softening point which satisfies the range of instant claim 6 as shown in the website http://www.chance-hunt.com/cepree/products/howitworks.htm. The suggestion to add glass frit to the fire barrier materials of Landin would lead to a composition wherein the glass additive is a mixture of glass frit and glass fiber as in instant claim 2.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Landin (US Pat. 6,153,674) as applied to claims 1 or 19, and further in view of Beauchamp (US Pat. 5,227,586).

Landin teaches the composition of instant claims 1 and 19 as described above. Landin does not explicitly teach that the compositions taught therein can serve as insulating sheaths for electrical cables. However, Beauchamp teaches fire resistant compositions which are used in electrical cables. Landin and Beauchamp are combinable because they are from the same field of endeavor, namely, fire-resistant compositions. At the time of the invention, a person having ordinary skill in the art would have found it obvious to employ the fire-resistant compositions as taught by Landin as fire-resistant insulators for electrical cables and would have been motivated to do so since Beauchamp teaches that coating electrical cables with fire-resistant sheaths have a number of benefits and advantages and are required by Government regulations so as to ensure the safety of people in the event of fire (1:9-30).

Claims 1, 3-5, 11-15, 19, 21-23, 28-33, 39-45 and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (JP-55078073). For convenience, a certified English-language translation of this document will be relied upon. Both the JP and translated documents are included with this Office action.

Claims 1, 19 and 43: Mizutani et al. teaches a heat-resistant coating which comprises a silicone resin and devitrified mica glass (claim 1 of Mizutani et al.). Mizutani et al. further teaches the addition of glass frits (claim 4 of Mizutani et al.). Regarding the amounts of these ingredients, Mizutani et al. teaches that the silicone rubber may be present in amounts of from 5-90%, and that the mica may be added in amounts of from 10-95% (bottom of page 9 to top of page 10). Mizutani et al. does teach that it is desirable to add glass frits to the silicone and mica compositions (bottom of page 7). The addition of glass frits are taught by Mizutani et al. to prevent the peeling and occurrence of cracks in the coating films and serves to take part in the ceramafication reaction of the mica and siloxane thereby affording a devitrified ceramic coating film. While Mizutani et al. does not explicitly teach the amount of glass frits to be added, it would have been obvious to a person having ordinary skill in the art at the time of the invention to adjust the amount of glass frits present in the compositions in order to achieve proper balance between crack formation and reaction with the silicone and mica as taught by Mizutani et al.

Claims 3-5 and 21-23: Mizutani et al. teaches that the glass frits used should have softening points between 350 and 900 °C, which substantially overlaps with the ranges of instant claims 3-5 and 21-23 (page 8).

Claim 11: Mizutani et al. teaches that zinc octylate (a crosslinking additive) may be present in the fire-resistant composition (middle of page 11).

Claims 12, 14 and 15: Mizutani et al. teaches the addition of phlogopite mica having an average particle diameter of 47 microns, which is sufficiently close to 50 microns that a person having ordinary skill in the art would expect the physical properties to be the same. "A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected [the claimed product and a product disclosed in the prior art] to have the same properties." *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

Claims 28-31, 44, 45, 47 and 48: While Mizutani et al. does not explicitly teach the physical property limitations of instant claims 28-31, 44, 45, 47 and 48, Mizutani et al. renders obvious the compositions of instant claims 1 and 19. A chemical composition and its properties are inseparable. Therefore, if the prior art and the instant claims require the same ingredients in the same amounts, then any properties associated with the prior art composition which are claimed would inherently be satisfied unless it can be shown/argued by the Applicants that this would not be the case.

Claim 33: Mizutani et al. teaches coatings on iron substrates, therefore Mizutani et al. teaches coatings on an electrical conductor (examples).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (JP-55078073) as applied to claim 1 above, and further in view of Hedrick (Mica, 1997, first published on the web on 8/24/2000).

Mizutani et al. teaches the composition of instant claim 1 as described above. Mizutani et al. does not explicitly teach that the mica which can be employed in the compositions can be

muscovite mica. However, a person having ordinary skill in the art recognizes that mica is not a single species but represents a class of minerals. Because of this, a person having ordinary skill in the art would have found it obvious to choose a specific type of mica, and based on the teaching of Hedrick, would have been motivated to choose muscovite mica since it is abundant and has superior electrical properties.

Claims 7, 8, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (JP-55078073) as evidenced by http://www.glassonweb.com/articles/article/376/.

Mizutani et al. renders obvious the fire resistant polymer composition of instant claim 1, as described above. Mizutani et al. specifically teaches that borosilicate glass frits may be employed. Borosilicate glass inherently has an alkali metal content of less than 30% as required by instant claims 7, 8, 25 and 26 as evidenced by http://www.glassonweb.com/articles/article/376/.

Claims 6, 9, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (JP-55078073) in view of Crompton et al. (US Pat. 4,879,066).

Claims 6 and 24: Mizutani et al. renders obvious the fire resistant polymer composition of instant claim 1, as described above. Mizutani et al. does not explicitly teach that a blend of glass additives which have low and high softening points may be employed. However, Crompton et al. does teach the addition of a blend of glass frits having low and high softening points (1:61-2:10). Mizutani et al. and Crompton are combinable because they are from the same field of endeavor, namely, fire-resistant compositions. At the time of the invention, it

would have been obvious to a person having ordinary skill in the art to add a blend of low and high softening glass frits as taught by Crompton into the fire-resistant compositions as taught by Mizutani et al. and would have been motivated to do so since Crompton teaches that the addition of frits of different melting temperatures provide continuous flow of molten frit as temperatures increase providing a fused protective layer (1:61-68).

Claims 9 and 27: Mizutani et al. does not explicitly teach that additional fire retardant additives such as those of instant claims 9 and 27 may be added. However, Crompton teaches the addition of alumina trihydrate (2:16-25). At the time of the invention, a person having ordinary skill in the art would have found it obvious to add alumina trihydrate as taught by Crompton into the compositions as taught by Mizutani et al. and would have been motivated to do so since Crompton teaches that alumina trihydrate releases most of its adsorbed water between 200 and 330 degree C to dampen burning and reduce smoke emission (2:16-25), which are desirable traits for the compositions taught by Mizutani et al.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (JP-55078073) as evidenced by http://www.glassonweb.com/articles/article/376/, as applied to instant claims 1 and 8 above, further in view of Crompton et al. (US Pat. 4,879,066).

Mizutani et al. renders obvious et al. the silicone fire resistant composition of instant claim 1, as described above. Mizutani et al. as evidenced by http://www.glassonweb/articles/article/376/, renders obvious the composition of instant claim 8, as described above. Mizutani et al. does not explicitly teach that the composition may further comprise inorganic fibers which do not melt at 1000 degrees C. However, Crompton teaches a

fire retardant composition which comprises a ceramic fiber (2:11-15). At the time of the invention, it would have been obvious to a person having ordinary skill in the art to add an inorganic fiber/ceramic fiber as taught by Crompton into the fire-resistant compositions as taught by Mizutani et al. and would have been motivated to do so because Crompton teaches that the inclusion of ceramic/inorganic fibers can bind the frits and remains unchanged at temperatures above 1000 degrees C (2:11-15).

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (JP-55078073) as applied to claim 1 above, further in view of Matsumoto et al. (US Pat. 6,174,943).

Mizutani et al. renders obvious the composition of instant claim 1, as described above. Mizutani et al. does not explicitly teach the addition of a silane coupling agent such as those of instant claim 17. However, Matsumoto et al. teaches a flame-retardant composition comprising mica in which the mica is treated with a silane coupling agent (6:58-64). Mizutani et al. and Matsumoto et al. are combinable because they are from the same field of endeavor, namely, flame-retardant compositions. At the time of the invention, a person having ordinary skill in the art would have found it obvious to include a silane coupling agent, such as an epoxysilane coupling agent as taught by Matsumoto et al. into the compositions as taught by Mizutani et al. and would have been motivated to do so because Matsumoto et al. teaches that the addition of a surface treatment agent increases adhesion between mica and the host resin and that an epoxysilane coupling agent in particular is preferred since it does not compromise the physical properties of the composition (6:58-64).

Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (JP-55078073) as applied to claim 43 above, in view of Takahashi et al. (US Pat. 5,061,736; cited on a previous PTO-892 form).

Mizutani et al. renders obvious the limitations of instant claim 43, as described above. Mizutani et al. does not explicitly teach the particle size of the glass additives. However, Takahashi et al. does teach fire-resistant silicone-based compositions comprising glass frit additives wherein the additives have a particle size which satisfies the limitations of instant claim 46 (5:54-6:2 and 13:50-55). Mizutani et al. and Takahashi et al. are combinable because they are from the same field of endeavor, namely, silicone-based fire-retardant compositions. At the time of the invention, a person having ordinary skill in the art would have found it obvious to keep the particle size of the glass frit additive within the range specified by Takahashi et al. and would have been motivated to do so because Takahashi et al. teaches that the workability of the silicone rubber composition is diminished when the particle size of the frits is too large (5:64-68). The preferred particle size of the frits is from 2 to 20 microns which substantially overlaps the range of instant claim 46.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT LOEWE whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-13021302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./
Examiner, Art Unit 1796
22-Jan-09

/Randy Gulakowski/

Supervisory Patent Examiner, Art Unit 1796